

**Abstract**

[0028] The present invention is related to a method for estimating a movement speed of a mobile unit in a mobile radio communication system. First, the present invention receives a first signal from the mobile unit. Then, the system calculates an envelope of the first signal and obtains a second signal by squaring the envelope. Next, the system obtains a third signal by multiplying the second signal by a modulated carrier, the carrier including a carrier frequency. According to the third signal, the present invention estimates the movement speed of the mobile unit.